

Radio observatory report and current LOFAR issues

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LOFAR Status Meeting 20091014

- 1 Observatory status
- 2 Status of issues
- 3 L2009_15343
- 4 Observation queue

Observatory status

System

- large diffs at CS030 clk 200 MHz
- DE601 can only be used with proxyARP enabled, however we cannot use list001 and list002 then. Consequence: Either Eff. autocorr, or synthesis with LOFAR-NL only.
- Situation resolved if new storage cluster can be used. Will be worked on next week.
- SAS/MAC: problems with station control and/or delay compensation
- Delay compensation: not always enabled?
- Possibly electric fence at RS503

Observations

Polarization busy week

HBA monitoring Stefan Wijnholds:

L2009_15343 Tau A

ASTRON

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Bug list (SOLVED)

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Bug list ((almost) EXPLAINED)

- Signal paths of even RCUs can jump between a high and low state (LBL/LBH switch broken (by ESD?)). New RCU: ESD diode, and no trafo's. Needs more research. Switches are of same type as faulty HBA delay boards. Why only even RCUs: unexplained.
- Phase jumps in waveform generator test at 200 MHz clock (Eric Kooistra, Brentjens) Test observation in queue.
- Non-hermiticity in ACM blocks of intra-RSP board visibilities in waveform generator tests (Overeem, Kooistra, will be fixed in RSPDriver)
- No fringe at long baselines (James Anderson, Jean-Mathias Griessmeier, Nicolas Pradel)
- HBA AC oscillations (Wijnholds)

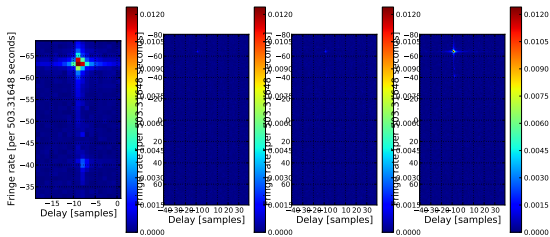
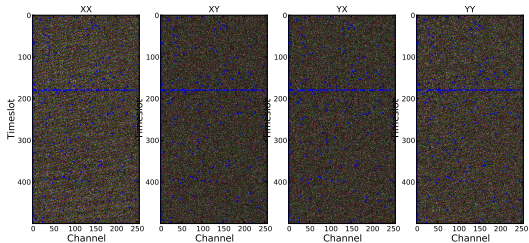
Bug list (OPEN)

- Discrete jumps in HBA power and RMS
- HBAs take minutes to reach full sensitivity
- Unreliable delay compensation
- SAS/MAC settings on station not understood
- Dataquality on new storage cluster not yet good
- Occasional timestamp jumps of 1 in CS302/RSP0 data sent to CEP. Due to CRC errors? (Kooistra, Romein)
- Steps in delay w.r.t. Nancay
- TP variations/ionospheric absorption (Ger de Bruyn)
- AC oscillations Pandey (nobody working on this)
- AC dips (Michiel Brentjens, PSR group. Useful data taken in second psr busy week)

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Tau A detected. . .

SB161.MS : 61.718 MHz



- Only problem on baseliens with CS030
- Other baselines are fine
- Fringe rate $\propto \nu$
- Position problem on CS030?

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- Anything that helps hunting down causes of primary bugs.